

#### **IV. Remarks**

Claims 1-18 were previously pending and under examination.

Claims 1-18 were rejected in the Office Action mailed October 30, 2007.

Claim 3 has been canceled.

Claims 1, 4-14 and 16 have been amended.

Claims 2, 15, 17 and 18 have been maintained in their previously-presented form.

Claims 19 and 20 have been added.

As a result, claims 1, 2 and 4-20 are pending.

Consideration of this application in light of the above amendments and the following remarks is respectfully requested.

#### **Withdrawal of Restriction and Election-of-Species Requirements**

Applicant acknowledges the withdrawal of the previous restriction requirement set forth in the Office Action mailed April 6, 2007, which withdrawal is discussed on page 2 of the Office Action mailed October 30, 2007.

Applicant also acknowledges the withdrawal of the previous election-of-species requirement set forth in the Office Action mailed April 6, 2007, which withdrawal is discussed on page 2 of the Office Action mailed October 30, 2007, and also was confirmed by the Examiner in a voice mail to the undersigned on November 9, 2007. Applicant appreciates this voice mail.

Applicant also acknowledges with appreciation the examination of claims 1-18.

#### **Priority**

On page 2, the Office Action mailed October 30, 2007, sets forth the following:

*"[A]n English translation [of the foreign priority paper] has not been provided. Correction is required."*

In response, it is noted that all of the references applied in the Office Action mailed October 30, 2007, antedate the priority date of the foreign priority paper. Therefore, the submission of an English translation of the foreign priority paper is currently not required, as also confirmed by the Examiner in the above-noted voice mail to the undersigned on November 9, 2007.

### **Rejections Under 35 U.S.C. §112**

#### Claims 11, 16 and 17

Claims 11, 16 and 17 stand rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite.

Claim 11 stands rejected under 35 U.S.C. §112, second paragraph, because there is insufficient antecedent basis for the limitation "said measuring equipment" in claims 1 and 2. Claim 11 has been amended to overcome this rejection.

Claim 16 stands rejected under 35 U.S.C. §112, second paragraph, because there is insufficient antecedent basis for the limitation "said reaction step" in claims 14 and 15. Claim 16 has been amended to overcome this rejection.

Claim 17 stands rejected under 35 U.S.C. §112, second paragraph, because it is dependent upon claim 16 and also for failing to further clarify the basis of the rejection of claim 16 under 35 U.S.C. §112, second paragraph. Since claim 16 has been amended to overcome its rejection under 35 U.S.C. §112, second paragraph, the rejection of claim 17 under 35 U.S.C. §112, second paragraph, is also overcome.

In view of all of the above, it is requested that the rejection of claims 11, 16 and 17 under 35 U.S.C. §112, second paragraph, be withdrawn.

#### Claim 4

Claim 4 stands rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite because the specification does not provide a definition for the limitation "an indeterminate member." Claim 4 has been amended to overcome this rejection. Therefore, it is requested that the rejection of claim 4 under 35 U.S.C. §112, second paragraph, be withdrawn.

### **Rejections Under 35 U.S.C. §102**

#### Claims 1-5, 9 and 13-17

Claims 1-5, 9 and 13-17 stand rejected under 35 U.S.C. §102(e) over U.S. Patent No. 6,491,823 to Safir et al. ("Safir '823"). Insofar as it may be applied against the present claims, this rejection is respectfully traversed.

Amended claim 1 recites: A carrier housing/processing apparatus comprising;  
one or a plurality of carriers fixed or able to be fixed with chemical substances such as ligands; a carrier housing section which is provided with a fluid inlet/outlet and which

accommodates said carrier; a drawing/discharging section configured to draw a fluid through said inlet/outlet and into said carrier housing section, and then discharge the fluid out of said carrier housing section through said inlet/outlet; and a transferring section which transfers said carrier housing section including said inlet/outlet relatively with respect to containers provided outside, wherein

said carrier is formed in a size or a shape not allowing said carrier to pass through said inlet/outlet, and in a state of holding said carrier in said housing section, by self-weight of said carrier, frictional force between said carrier and the inner wall of said housing section, or remote force from outside with respect to said carrier, a fluid is drawn and discharged,

wherein said carrier housing section further comprises an opening having a size enabling said carrier to pass through, and said drawing/discharging section is provided with a nozzle which detachably connects with said opening, and said carrier is formed in a size capable of passing through said opening but not capable of passing through said inlet/outlet.

The PTO provides in MPEP §2131 that:

*"[t]o anticipate a claim, a reference must teach every element of the claim."*

Therefore, to support a rejection under 35 U.S.C. §102(e) with respect to claim 1, a reference must contain every element of claim 1. However, Safir '823 does not disclose the subject matter of amended claim 1, as recited above.

In contrast to amended claim 1, Safir '823 only discloses a system wherein fluid flows through a chromatographic column 102 in a one-way direction; that is, from an injection valve 100 and through an inlet port of a chromatographic column 102, through the column 102, out of the column 102 through the effluent port of the column 102, and to a waste container 140 (see, e.g., Safir '823, Fig. 6). Safir '823 does not disclose a drawing/discharging section configured to draw a fluid through said inlet/outlet and into said carrier housing section, and then discharge the fluid out of said carrier housing section through said inlet/outlet, as required by amended claim 1.

Therefore, for this reason alone, the rejection based on 35 U.S.C. §102(e) cannot be supported by Safir '823 as applied to amended claim 1.

In further contrast to amended claim 1, although Safir '823 discloses an auto sampler that can be programmed to automatically sample different polymers one after another to serially load the polymers, Safir '823 does not disclose a transferring section which transfers the chromatographic column 102. Since the chromatographic column 102 of Safir '823 is characterized by the Examiner to be the carrier housing section recited in claim 1, it is clear that Safir '823 does not disclose a transferring section which transfers said carrier housing section including said inlet/outlet relatively with respect to containers provided outside, as required by amended claim 1.

Therefore, for this reason alone, the rejection based on 35 U.S.C. §102(e) cannot be supported by Safir '823 as applied to amended claim 1.

In still further contrast to claim 1, Safir '823 does not disclose a carrier housing section comprising an opening having a size enabling a carrier to pass through, and a drawing/discharging section provided with a nozzle which detachably connects with said opening, and said carrier is formed in a size capable of passing through said opening but not capable of passing through said inlet/outlet, as required by amended claim 1.

Therefore, for this reason alone, the rejection based on 35 U.S.C. §102(e) cannot be supported by Safir '823 as applied to amended claim 1.

Notwithstanding the absence of any disclosure of at least the drawing/discharging section being provided with the nozzle which detachably connects with the opening of the carrier housing section, as claimed in amended claim 1, the Office Action mailed October 30, 2007, nevertheless asserts that:

*The drawing/discharging section being provided with a detachable nozzle that connects with the opening that enables the carrier to pass through . . . [is] **inherent** to any chromatographic column. (Page 5, Office Action mailed October 30, 2007) (emphasis added)*

Since Safir '823 discloses a chromatographic column, the Office Action mailed October 30, 2007, asserts that Safir '823 somehow discloses on the basis of inherency the limitation of the drawing/discharging section being provided with the nozzle which detachably connects with the opening of the carrier housing section. This assertion is respectfully traversed. It is **improper** for the Examiner to take Official Notice of facts without citing a single prior art reference where the facts that are asserted to be well known are not capable of instant and

unquestionable demonstration as being well known. See, e.g., In re Ahlert, 424 F.2d at 1091. Applicant therefore respectfully requests that the Examiner either:

- i. demonstrate that, at the time of the invention, a carrier housing section comprising an opening having a size enabling a carrier to pass through, and a drawing/discharging section provided with a nozzle which detachably connects with said opening, and said carrier is formed in a size capable of passing through said opening but not capable of passing through said inlet/outlet, is capable of instant and unquestionable demonstration; **OR**
- ii. provide a declaration pursuant to 37 C.F.R. §1.104(d)(2) that details the personal knowledge of the Examiner as to a carrier housing section comprising an opening having a size enabling a carrier to pass through, and a drawing/discharging section provided with a nozzle which detachably connects with said opening, and said carrier is formed in a size capable of passing through said opening but not capable of passing through said inlet/outlet, at the time of the invention.

The Examiner's position, taken to its logical extreme, would render nothing patentable since, eventually, everything can be discovered if one spends enough time trying every possible combination of potentially suitable configurations. Furthermore, the Examiner's position would also render all best mode details provided in a patent application unpatentable.

Claims 2, 4, 5, 9 and 13 depend from and include the subject matter of claim 1, and therefore are not anticipated by Safir '823 for at least the same reasons as noted above with respect to amended claim 1.

Claim 3 has been canceled without prejudice or disclaimer and therefore any rejection thereof is no longer applicable.

Amended claim 14 recites: A carrier housing/processing method comprising;  
a drawing/contacting step for, with respect to a housing section which accommodates one or a plurality of carriers fixed or able to be fixed with chemical substances such as ligands and has an inlet/outlet which enables a fluid to pass through but does not enable said carriers to

pass through, drawing fluid through said inlet/outlet from external containers by a drawing/discharging section, to contact said carriers which are held in said carrier housing section by self-weight of said carrier, frictional force with the inner wall of said carrier housing section, or remote force from outside with respect to said carrier, with the drawn fluid; and

a discharging step for discharging only said fluid through said inlet/outlet by said drawing/discharging section, in a state where said carrier is accommodated in said carrier housing section,

wherein said carrier housing section further comprises an opening having a size enabling said carrier to pass through, and said drawing/discharging section is provided with a nozzle which detachably connects with said opening, and said carrier is formed in a size capable of passing through said opening but not capable of passing through said inlet/outlet.

As noted above, to support a rejection under 35 U.S.C. §102(e) with respect to a claim, a reference must contain every element of the claim. However, Safir '823 does not disclose the subject matter of amended claim 14, recited above.

In contrast to amended claim 14, Safir '823 only discloses a system wherein fluid flows through a chromatographic column 102 in a one-way direction; that is, from an injection valve 100 and through an inlet port of a chromatographic column 102, through the column 102, out of the column 102 through the effluent port of the column 102, and to a waste container 140 (see, e.g., Safir '823, Fig. 6). Safir '823 does not disclose drawing fluid through said inlet/outlet from external containers by a drawing/discharging section, to contact said carriers which are held in said carrier housing section, and discharging only said fluid through said inlet/outlet by said drawing/discharging section, in a state where said carrier is accommodated in said carrier housing section.

Therefore, for this reason alone, the rejection based on 35 U.S.C. §102(e) cannot be supported by Safir '823 as applied to amended claim 14.

In further contrast to claim 14, Safir '823 does not disclose a carrier housing section comprising an opening having a size enabling a carrier to pass through, and a drawing/discharging section provided with a nozzle which detachably connects with said opening, and said carrier is formed in a size capable of passing through said opening but not capable of passing through said inlet/outlet.

Therefore, for this reason alone, the rejection based on 35 U.S.C. §102(e) cannot be supported by Safir '823 as applied to amended claim 14. Moreover, and in connection with the Examiner's assertion that the drawing/discharging section being provided with a detachable nozzle that connects with the opening that enables the carrier to pass through is somehow inherent to any chromatographic column, Applicant refers the Examiner to the discussion above regarding improper Official Notice, which is found on pages 11 and 12 of the present paper.

Claims 15-17 depend from and include the subject matter of claim 14, and therefore are not anticipated by Safir '823 for at least the same reasons as noted above with respect to amended claim 14.

For the foregoing reasons, it is requested that the rejection of claims 1-5, 9 and 13-17 under 35 U.S.C. §102(e) over Safir '823 be withdrawn.

### **Rejections Under 35 U.S.C. §103**

#### *Claims 1-9 and 12-18*

Claims 1-9 and 12-18 stand rejected under 35 U.S.C. §103(a) over Safir '823 in view of both U.S. Patent No. 5,702,950 to Tajima et al. ("Tajima '950") and U.S. Patent No. 6,607,662 to Ikeda et al. ("Ikeda '662"). Insofar as it may be applied against the present claims, this rejection is respectfully traversed.

As noted above, claim 3 has been canceled without prejudice or disclaimer and therefore any rejection thereof is no longer applicable.

The deficiencies of Safir '823 with respect to claim 1 and thus each of claims 2, 4-9, 12 and 13 are noted above. Neither Tajima '950 nor Ikeda '662 supplies the deficiencies of Safir '823 with respect to claim 1. For this reason, it is clear that Safir '823 in view of both Tajima '950 and Ikeda '662 does not disclose the subject matter of claim 1 and of claims 2, 4-9, 12 and 13 which depend therefrom.

Similarly, the deficiencies of Safir '823 with respect to claim 14 and thus each of claims 15-18 are noted above. Neither Tajima '950 nor Ikeda '662 supplies the deficiencies of Safir '823 with respect to claim 14. For this reason, it is clear that Safir '823 in view of both Tajima '950 and Ikeda '662 does not disclose the subject matter of claim 14 and of claims 15-18 which depend therefrom.

In addition, it would not be obvious to modify the disclosures of Safir '823, Tajima '950 or Ikeda '662 to include the subject matter of any of claims 1, 2, 4-9 and 12-18 because there is no reason to so modify the disclosures of Safir '823, Tajima '950 or Ikeda '662.

Accordingly, it is requested that the rejection of claims 1-9 and 12-18 under 35 U.S.C. §103(a) over Safir '823 in view of both Tajima '950 and Ikeda '662 be withdrawn.

Claims 1-5, 9-11 and 13-17

Claims 1-5, 9-11 and 13-17 stand rejected under 35 U.S.C. §103(a) over Safir '823 in view of Deschamps et al., *Rapid Purification of Recombinant Green Fluorescent Protein Using the Hydrophobic Properties of an HPLC Size-Exclusion Column*, Protein Expression and Purification 6, pp. 555-558 (1995) ("Deschamps").

Although the first paragraph in Section 10 on Page 7 of the Office Action mailed October 30, 2007, indicates that only claims 1-5, 9 and 13-17 stand rejected under 35 U.S.C. §103(a) over Safir '823 in view of Deschamps, the second paragraph in Section 10 on Pages 7 and 8 of the Office Action mailed October 30, 2007, addresses claims 1-5, 9 and 13-17, and further addresses claims 10 and 11. Therefore, it is assumed that claims 1-5, 9-11 and 13-17 stand rejected under 35 U.S.C. §103(a) over Safir '823 in view of Deschamps.

Insofar as it may be applied against the present claims, the rejection of claims 1-5, 9-11 and 13-17 under 35 U.S.C. §103(a) over Safir '823 in view of Deschamps is respectfully traversed.

As noted above, claim 3 has been canceled without prejudice or disclaimer and therefore any rejection thereof is no longer applicable.

The deficiencies of Safir '823 with respect to claim 1 and thus each of claims 2, 4, 5, 9-11 and 13 are noted above. Deschamps does not supply the deficiencies of Safir '823 with respect to claim 1. For this reason, it is clear that Safir '823 in view of Deschamps does not disclose the subject matter of claim 1 and of claims 2, 4, 5, 9-11 and 13 which depend therefrom.

Similarly, the deficiencies of Safir '823 with respect to claim 14 and thus each of claims 15-17 are noted above. Deschamps does not supply the deficiencies of Safir '823 with respect to claim 14. For this reason, it is clear that Safir '823 in view of Deschamps does not disclose the subject matter of claim 14 and of claims 15-17 which depend therefrom.

In addition, it would not be obvious to modify the disclosures of Safir '823 or Deschamps to include the subject matter of any of claims 1, 2, 4, 5, 9-11 and 13-17 because there is no reason to so modify the disclosures of Safir '823 or Deschamps.

Accordingly, it is requested that the rejection of claims 1-5, 9-11 and 13-17 under 35 U.S.C. §103(a) over Safir '823 in view of Deschamps be withdrawn.

### **New Claims 19 and 20**

New claim 19 depends from and includes the subject matter of amended claim 1, and therefore is allowable for at least the same reasons as noted above with respect to amended claim 1. Moreover, none of Safir '823, Tajima '950, Ikeda '662 and Deschamps discloses the subject matter of claim 19, namely an apparatus wherein the carrier housing section comprises a large diameter section; wherein the apparatus further comprises a filter provided in the large diameter section of the carrier housing section, the filter dividing the large diameter section to thereby define upper and lower spaces of the large diameter section, the lower space being fluidically coupled to the inlet/outlet; wherein the carrier is disposed in the lower space of the large diameter section of the carrier housing section; wherein the drawing/discharging section is configured to draw the fluid through the inlet/outlet and into the lower space of the large diameter section of the carrier housing section, and then discharge the fluid out of the lower space of the large diameter section of the carrier housing section through the inlet/outlet; and wherein the filter prevents the fluid drawn into the lower space from invading the upper space.

New claim 20 depends from and includes the subject matter of amended claim 14, and therefore is allowable for at least the same reasons as noted above with respect to amended claim 14. Moreover, none of Safir '823, Tajima '950, Ikeda '662 and Deschamps discloses the subject matter of claim 20, namely a method wherein the carrier housing section comprises a large diameter section; wherein the method further comprises providing a filter in the large diameter section of the carrier housing section, the filter dividing the large diameter section to thereby define upper and lower spaces of the large diameter section, the lower space being fluidically coupled to the inlet/outlet; wherein the carrier is disposed in the lower space of the large diameter section of the carrier housing section; wherein the drawing/contacting step further comprises drawing the fluid through the inlet/outlet and into the lower space of the large diameter section of the carrier housing section; wherein the discharging step comprises

discharging the fluid out of the lower space of the large diameter section of the carrier housing section through the inlet/outlet; and wherein the method further comprises preventing the fluid drawn into the lower space from invading the upper space using the filter.

### Conclusion

It is believed that all matters set forth in the Office Action mailed October 30, 2007, have been addressed. Applicant has made a diligent effort to advance the prosecution of this application by canceling claim 3, amending claims 1, 4-14 and 16, and adding claims 19 and 20.

In view of all of the above, the allowance of claims 1, 2 and 4-20 is respectfully requested.

Unless stated otherwise, the amendments to the claims were not made for reasons substantially related to the statutory requirements for patentability.

Furthermore, unless stated otherwise, the amendments to the claims were made to simply make express what had been implicit in the claims as originally worded and therefore none of the amendments to the claims is a narrowing amendment that would create any type of prosecution history estoppel. In addition, to the extent that any formerly dependent claim is now presented in independent form, such an amendment does not constitute a narrowing amendment that surrenders any subject matter.

The Examiner is invited to call the undersigned at the below-listed telephone number if a telephone conference would expedite or aid the prosecution and examination of this application.

Respectfully submitted,



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